DESIRABLE PRODUCTION ADJUSTMENTS IN OHIO AGRICULTURE IN 1951
(Under assumed conditions)

Suggestions Prepared by
The Ohio Agricultural Production Adjustment Committee

Department of Agricultural Economics and Rural Sociology
Mimeograph Bulletin No. 219

Ohio Agricultural Experiment Station
and
Ohio State University

Columbus, Ohio
October, 1950

TABLE OF CONTENTS

FORMS AND TABLES

I. INTRODUCTION

Each year from 1942 to 1948 the Ohio Agricultural Experiment Station and the College of Agriculture of Ohio State University cooperated with the Bureau of Agricultural Economics and the United States Department of Agriculture, in preparing a statement of suggestions for crop and livestock production in Ohio for the year ahead. Since adjustment in farm production must constantly be made to adapt it to changing conditions, the Ohio Agricultural Experiment Station and the College of Agriculture have continued the work and prepared the present report.

The suggested pattern for 1951 was developed by the Ohio Production Adjustment Committee. Membership of this committee consists of representatives of the following organizations:

Ohio Agricultural Experiment Station
College of Agriculture, O.S.U.
Agricultural Extension Service
Bureau of Agricultural Economics, U.S.D.A.
Soil Conservation Service
Production & Marketing Administration, Ohio

J. I. Falconer, Chairman of the Department of Agricultural Economics and Rural Sociology, served as Chairman.

Suggestions of the committee were assembled and this report prepared by J. H. Sitterley of the Department of Agricultural Economics, Ohio State University.

The committee has attempted to suggest what Ohio farmers should produce in 1951, in the light of prospective demand, requirements for 1951 production and the need for maintaining the state's agricultural plant in a high state of productivity. In the development of the various crop and livestock estimates, the committee has drawn on historical data, past studies, and the best judgment available. The "long-time objective" crop and livestock estimates presented in the report, Postwar Crop and Livestock Pattern for Ohio, December 1944, were also used as a guide in arriving at the suggested level of production for Ohio.

II. BASIC ASSUMPTIONS

As in the past studies, the estimates and suggestions presented in this report were arrived at as nearly as possible on a basis of a set of assumed conditions. In 1950, the following basic assumptions were made:

1. That the Korean war and the tense international situation will have a pronounced affect on the nation's economy.

2. That the increased military and armament activities, together with the requirements of our expanding domestic population and prospective export requirements, will (at least maintain and probably) increase the demand for farm products above that of 1949 and the first half of 1950.

3. That farm prices will average somewhat higher than during the July 1949-July 1950 period.

4. That farm operating costs will continue the upward trend of recent years.

5. That labor will become a limiting factor in production and remain so as long as a large military establishment must be maintained.

6. That resources available to Ohio farmers in 1951 will be somewhat less abundant, particularly labor, but for the most part adequate to meet the demand.

7. That farmers' plans are more flexible now than formerly because of training, experience, and equipment, thus more quickly adjusted to changing conditions.

8. That in view of the probability of a prolonged period of international tension and our expanding domestic demand, it is necessary in the interest of national well being to give increased attention to maintaining the productivity of our agricultural plant at a high level.

9. That any future increase in demand for farm products, except the most temporary in nature, can best be met through a more general use of production and management techniques known to be most effective.

10. That research and education work will be continued and expanded for the purpose of finding and putting into practice additional techniques for maintaining and rebuilding our land resources, for expanding output per farm worker, and for expansion of total production when needed.

The estimates and suggestions of this report, based upon these assumptions, are not intended to be goals for 1951. The estimates represent the best judgment of the group as to the crop acreages and the livestock numbers that Ohio farmers should produce in 1951 under the assumed conditions. In setting goals, further consideration should be given to national and international needs. Thus, any goals for Ohio may be established either above or below the level of production suggested in this report.

III. CROP PRODUCTION IN 1951

With the prospects for uncertain world conditions for several years to come, together with the permanent expansion in demand created by our rapidly growing population, a 1951 crop program which will continue the downward trend in the rate of soil deterioration was considered essential in the interest of national security and individual well being by the committee. If some expansion in output of farm products is deemed desirable or necessary in 1951, the committee recommends the greater use of production techniques which increase the output per acre rather than an expansion in the acreage of depleting crops.

TABLE 1 - Ohio: Suggested Utilization of Cropland in 1951, With Comparisons

Use of cropland	Reported 1949		Expected 1950		1951 Suggested		Long-time objective	
	Acreage	% of total cropland	Acreage	% of total cropland	Acreage	% of total cropland	Acreage	% of total cropland
Column	1	2	3	4	5	6	7	8
	1000 acres	%	1000 acres	%	1000 acres	%	1000 acres	%
Intertilled crops	4,677	36	4,634	35	4,289	33	3,703	30
Small grain crops	3,763	29	3,372	26	3,490	27	3,004	24
Sod crops	4,116	31	4,537	35	4,621	36	5,083	40
Tame hay & seed crops	2,469	19	2,682	21	2,715	21	3,035	24
Rotation pasture	1,650	12	1,855	14	1,906	15	2,048	16
Idle cropland	522	4	535	4	600	4	754	6
Total cropland	13,078	100	13,078	100	13,000	100	12,544	100

The suggested reduction in intertilled acreage below that expected in 1950 was considered necessary if the land is to be in a position to meet more urgent demands than those currently in prospect. A more extensive use of production practices, proven to be best, together with the substantial carryovers of grains, and the currently favorable prospects for the 1950 crop will make possible the suggested reduction in intertilled crops proposed for 1951.

Reported	1944 - - - -	5,464,000 acres
Reported	1945 - - - -	5,057,000 acres
Reported	1946 - - - -	4,839,000 acres
Reported	1947 - - - -	4,569,000 acres
Reported	1948 - - - -	4,780,000 acres
Reported	1949 - - - -	4,677,000 acres
Expected	1950 - - - -	4,634,000 acres
Suggested	1951 - - -	4,289,000 acres

The suggested downward adjustment in the intertilled acreage is a much needed step in the direction of putting the states land resources in a po-

sition to meet heavier future demands. Since peak intertilled acreage in 1944 considerable progress has been made, but much more still remains to be achieved if soil deterioration is to be eliminated and more efficient production secured.

The relatively high small grain acreage suggested for 1951 was deemed desirable for three reasons: First, almost universally the state's new grass seeding is made in small grain, thus, it is needed to encourage the expansion of the sod crop so essential to soil maintenance and restoration. Second, small grains, particularly wheat which comprises 2/3 of the total, is a readily storable crop which can be used for either human consumption or livestock feed; and third, fall sown grain provide ground cover which reduces erosion and leaching. Small grain acreages since 1943 are as follows:

Reported	1944 - - - -	3,263,000 acres
Reported	1945 - - - -	3,613,000 acres
Reported	1946 - - - -	3,276,000 acres
Reported	1947 - - - -	3,170,000 acres
Reported	1948 - - - -	3,628,000 acres
Reported	1949 - - - -	3,763,000 acres
Expected	1950 - - - -	3,372,000 acres
Suggested	1951 - - -	3,490,000 acres

The suggested sod crop acreage is one million acres above the wartime low which occurred in 1944. In 1944 and 1945 sod crops comprised less than 30 percent of the total cropland. During these years we were depleting the productivity of our cropland in excess of .7 percent per year. Realizing the impossibility of continuing such a program for long, farmers stepped up their sod crop acreage. The expected 1950 sod crop acreage will occupy 35 percent of the total crop land area. The suggested crop program for 1951 would raise this to 36 percent. until additional techniques for maintaining and improving soils are developed and put in use, approximately 40 percent of the cropland area of the state must be used for sod crops (predominately high quality legumes) if further deterioration is to be stopped and some needed rebuilding is to occur. Sod crop acreages have been as follows:

1944	- - - -	3,582,000 acres
1945	- - - -	3,642,000 acres
1946	- - - -	4,220,000 acres
1947	- - - -	4,314,000 acres
1948	- - - -	4,066,000 acres
1949	- - - -	4,116,000 acres
1950	- - - -	4,537,000 acres
Suggested 1951	- - -	4,621,000 acres

During the past few years the acreage of idle cropland (including crop failure) has been at the low level of about 4 percent of the total cropland area. The stimulus of favorable prices has been the prime factor in holding the idle acreage near the level suggested as a long-time objective.

Effects on Soil Productivity

The long-time trend in the productivity of the average soils of Ohio has, for many years, been downward. Nevertheless, the yields of crops have been sustained and even raised by the interjection of numerous new cultural techniques and more efficient varieties. However, had not the productivity of the soils been declining, these new techniques and plant strains would have produced far greater increases in yields than those realized.

For a number of years Ohio agronomists have been calculating, by means of a system of productivity balances, the percentage changes that occur annually in the productive capacities of the soils of the state under specific cropping and management systems (see Table 2.) 1/ These calculations indicate that slight progress was made during the thirties toward a better balance (lesser negative factor), but this was abruptly reversed by the stimulus to produce in order to meet World War II requirements for food. This acceleration in the rate of soil deterioration was a source of concern to farmers, and many curtailed their acreage of depleting crops and stepped up their acreage of soil building crops. These adjustments were sufficient to produce an appreciable reduction in the rate at which the state's soils were being depleted. In addition to these shifts in the state's cropping pattern toward less depletion there has been a rapid expansion in the installation of erosion and water control measures which have also decreased the rate (see Table 2).

The sharp curtailment in the rate of soil depletion which took place in 1947 was influenced appreciably by the adverse spring season which restricted the acreage of intertilled crops below what it would otherwise have been. With the larger acreage of intertilled and small grain crops in 1948, some increase in the rate of soil deterioration again took place. The crop pattern expected in 1950, together with the further expansion in erosion and water control measures placed in operation by farmers, will cut the rate of depletion to - .36. The suggested program for 1951 would lower the rate to -.27.

TABLE 2 - Ohio: Soil Productivity Balance*

Year	Productivity balance factor	What's happening to productivity of Ohio soils
1929	-.65	depleting
1935	-.61	depleting
1939	-.51	depleting
1942	-.61	depleting
1943	-.64	depleting
1944	-.76	depleting
1945	-.70	depleting
1946	-.63	depleting
1947	-.52	depleting
1948	-.55	depleting
1949	-.46	depleting
1950 expected	-.36	depleting
1951 suggested	-.27	depleting
Long-time objective	+.20	maintaining

Data prepared by J. A. Slipher, Extension Conservationist, Ohio State University

1/ "Our Heritage - The Soil," Ohio Agricultural Extension Service, Bul.

The long-time objective is a crop and livestock pattern for the state that will maintain and improve the productivity of the land. In the interests of national and individual farm security, progress toward this goal should be made as rapidly as conditions permit. Farm management studies in Ohio show that farming is more profitable, and greater physical output secured, where the productivity of the land is maintained than where it is exploited. 1/ The farming pattern of the state will still require major adjustments before the long-time objective is reached.

The suggested cropping pattern for 1951, continuation and intensification in the use of lime, fertilizer, manure and an expansion in the proportion of the sod crops that are legumes, will do much to facilitate the attainment of the long-time objective.

1/ "The Relationship Between Soil Maintenance and Profitable Farming," Ohio Agricultural Experiment Station, Bulletin 604.

Acreage Adjustments - Major Crops

In 1949 the adjustment committee recommended that the 1950 corn acreage be reduced approximately one-half million acres below the large 1949 crop. It was proposed that sod crops be increased by a similar acreage since the large corn carryover from the previous season, and some surplus expected from the 1949 crop would support a 1950-51 livestock program as large as that carried in 1949-50.

The 1950 committee would have liked to have recommended a corn acreage for 1951 of about three million acres and corresponding cuts in other depleting crops with equivalent increase in sod crops. However, in light of the acute international situation the committee deemed it desirable to place more emphasis in 1951 on reducing soil deterioration through greater use of improved production, conservation, and management practices and to cut acreages less than would have been suggested had a more peaceful world situation prevailed.

Corn: Both 1948 and 1949 provided Ohio with large corn crops and the July first prospects for the 1950 crop is for a per acre yield equal to that of 1949. A substantial carryover from the 1948 and 1949 crops will be on hand to add to the 1950 harvest. If the 1950 crop matures as now expected, it plus the carryover, will provide a sizeable excess above prospective 1950-51 feed requirements.

In light of the prospects for a considerable carryover October 1, 1950 to add to the 1950 crop, the committee suggested that the state plant 3,200,000 acres of corn in 1951. This is 173,000 below the acreage planted in 1950, but 100,000 acres more than was proposed for 1950. With the opportunity for a large part of the 1951 crop to follow a sod crop, and the further improvement which can be made by farmers in 1951 in their production methods, much of the decrease in acreage can be offset by improvement in yields per acre. However, with only average yields and the expected carryover on farms and in government storage October 1951, an adequate supply of corn would be available to support a livestock program in 1951-52 equal to that now on Ohio farms.

TABLE 3. The State's Corn Acreage, Production, and Carryover, 1944 to date.

	Acres (000)	Production bushel (000)	Carryover bushel October 1 (000)	Production plus carryover# (000)
1933-44 average	3,519	155,800	---	---
1944 reported	3,781	142,956	9,638	152,594
1945 reported	3,592	176,913	8,864	185,777
1946 reported	3,671	178,409	12,480	190,889
1947 reported	3,414	138,826	15,850	154,676
1948 reported	3,691	215,924	5,716	221,640
1949 reported	3,617	202,552	28,714	231,266
1950 expected *	3,373	188,384	15,000	203,384
1951 suggested	3,200	160,000	13,500	173,500

* July 1 estimate.
\# On farms.

Soybeans: Soybean acreage recommended for 1951 was 900,000 acres. This is 86,000 acres below the 5 year average 1946-1950. Ohio's peak acreage planted to soybeans was one and a half million in 1944. During the next five years the acreage declined to 902,000 in 1949, which was still about 200,000 acres larger than can be grown and maintain the land under practical soil maintenance and conservation techniques now known and in use on many farms.

On many farms soybeans tend to be used as the residual spring crop. If the spring conditions are unfavorable for either seeding oats or planting corn, or both, the area put to beans is increased to utilize the unseeded and planted acres, and when conditions are the reverse the acreage of beans tends to decrease. In 1950, corn agreage allotments and unfavorable weather at oats sowing time were factors in the sizeable increase in the area seeded to soybeans.

Wheat: Since 1943 Ohio farmers have seeded an average of 2,185,000 acres of wheat per year, with only one year, 1946, dropping below two million acres. The 5 years, 1939-43, were all under two million acres with an average of 1,830,000 acres per year. Good yields, favorable sowing conditions, strong demand, and the desire of many farmers to have as much of their land as possible seeded to a winter cover crop, have been important factors in this increased acreage.

A wheat acreage of 2,275,000 is suggested for 1951 (to be seeded in the fall of 1950). This is the same as was recommended for 1950, and is 136,000 acres larger than the 1950 crop. The committee consider this acreage of wheat justifiable for two reasons. In the first place the uncertain international situation makes it desirable to have an abundant supply of this readily storable product on hand which can be used for either human food or livestock feed as the need arises. Second, it tends to encourage increased meadow crop seeding and provides ground cover over winter, both of which are important in reducing soil deterioration.

Oats: If Ohio farmers are able to seed the 2,275,000 acres of wheat suggested for this fall, then about 1,200,000 acres of oats should be seeded in the spring of 1951. This is approximately the same as that seeded in 1950. If a smaller wheat acreage is seeded this fall, then a greater acreage of oats should be planted in 1951. The increased acreage of corn picked, improved oat yields, and favorable prices in recent years have been factors in making oats more attractive to the farmers of Ohio.

Hay and Pasture Crops: The harmful effects of years of soil deterioration are made less obvious by favorable weather, constantly improved seeds, and heavier and heavier applications of fertilizer. The unusually good growing seasons of recent years cause us to readily forget previous unfavorable seasons which accentuate the effects of soil exploitation. Advantage should be taken of the opportunity provided by two consecutively favorable crop years to reduce soil depleting crops in favor of sod crops which put the land in a better position to cope with adverse weather conditions when they appear.

Form 1

Ohio: Suggested use of farm land in 1951 with comparisons

Use of farm land	Acreage	Reported for 1949	Expected in 1950	Suggested for 1951	Long-time objective
Column	1	2	3	4	5
		1000 acres	1000 acres	1000 acres	1000 acres
Corn, all	P	3,627	3,373	3,200	2,750
Soybeans, grown alone	P	902	1,118	900	697
Soybeans for beans	H	858	1,062	875	675
Soybeans for hay	H	36	40	25	22
Tobacco, all	H	21	20.3	22	26
Burley	H	14	12.8	14	17
Other domestic	H	7	7.5	8	9
Sugar beets	P	31	30	45	45
Irish potatoes	P	38	39	50	75
Popcorn	P	9	12	10	10
Vegetable crops produced for sale		83	76	93	100
Vegetables for processing					
Green peas		2.9	2.8	3.0	
Tomatoes		23.2	23.2	30.0	
Sweet corn		17.7	10.0	17.0	
Lima beans		1.0	.7	1.2	
Cabbage (kraut)		1.0	1.5	1.5	
Cucumbers for pickles		2.1	2.0	2.5	
Vegetables for fresh market					
Cabbage		2.4	3.3	3.0	
Cantaloups		1.2	1.1	1.5	
Carrots		1.4	1.5	1.6	
Celery		1.3	1.3	1.3	
Onions		0.8	0.8	1.0	
Tomatoes		3.5	3.5	4.0	
Sweet corn		7.0	7.0	8.0	
Other vegetables		17.5	17.3	17.4	
Adjustment for multiple use		34	34	31	
Total cropland used for intertilled crops 1/		4,677	4,634	4,289	3,703
Oats	P	1,373	1,181	1,200	1,074
Barley	P	17	37	35	36
Winter wheat	P	2,377	2,139	2,275	1,924
Oats for grain	H	1,334	1,140	1,170	1,050
Barley for grain	H	16	35	35	36
Grains cut green for hay	H	20	31	25	24
Rye for grain	H	15	55	25	49
Buckwheat	P	11	15	15	17
Adjustment for multiple use		30	55	60	96
Total cropland used for close-growing crops 1/		3,763	3,372	3,490	3,004

Form 1 (continued)

Ohio: Suggested use of farm land in 1951 with comparisons

Use of farm land	Acreage	Reported for 1949	Expected in 1950	Suggested for 1951	Long-time objective
Column	1	2	3	4	5
		1000 acres	1000 acres	1000 acres	1000 acres
Hay, all tame--except soybean, cowpea, peanut & small grain hay	H	2,373	2,577	2,600	2,910
Hay, all tame	H	2,429	2,648	2,650	2,956
Seeds, hay and cover crop, all	H	218	375	435	435
Alfalfa	H	7	10	20	60
Red clover	H	115	260	300	250
Sweet clover	H	13	10	15	25
Alsike	H	19	15	30	40
Timothy	H	64	80	70	60
Rotation (cropland) pasture		1,650	1,855	1,906	2,048
Adjustment for multiple use		125	270	320	310
Total cropland used for sod crops 1/		4,116	4,537	4,621	5,083
Idle cropland		522	535	600	754
Total cropland 1/		13,078	13,078	13,000	12,544
Orchards, vineyards, & small fruits, total		150	150	150	150
Other plowable pasture		2,300	2,300	2,300	2,300
Open non-plowable pasture		2,500	2,500	2,500	2,500
Woodland pasture		1,300	1,300	1,200	350
Woodland unpastured and other land in farms		2,600	2,600	2,700	3,556
Total land in farms		21,928	21,928	21,850	21,400
Winter cover crops, legumes	P	10	10	15	15
Other pasture in farms	U				
New seedings after harvested nurse crops	U	1,650	1,650	1,550	1,550
Hay and seed-crop aftermath	U	1,000	1,000	1,200	1,200
Winter grains grazed (pre-harvest)	U	50	50	50	50
Stalk and stubble fields	U	600	600	500	500

1/ Total acres used for crops is less than the sum of the acreages of individual crops to the extent that two or more crops were, or will be, planted on or harvested from the same land during the year.

P = Planted acres
H = Harvested acres
U = Used

A definite effort should be put forth now to maintain the large 1950 acreage, and if possible, expand it further. The suggested acreage for for 1951 calls for about 100,000 acres more hay and rotation pasture than was produced in 1950. In addition, it is the committee's recommendation that alfalfa and clover be included in all new meadow seeding on land capable of producing these crops.

For the state as a whole the production of hay and rotation pasture has about met the minimum needs for livestock production in recent years. The proposed increase in acreage and suggested increase in legumes would permit the livestock access to both more and better quality grazing and roughage. This in turn would reduce the need for feed grains amd make for greater efficiency in livestock production as well as more productive soils.

Potatoes: A sharp downward trend in the acreage of potatoes has prevailed for several years, declining from the 1937-41 average of 110,000 acres to 38,000 acres in 1949. Labor shortages, disease and other risk factors have caused the potato grower considerable difficulty. Furthermore, many farmers who formerly grew a few potatoes for their own use have discontinued this practice in recent years. The committee feels that this downward trend should be stopped and reversed since Ohio is now a deficit potato producing area. The acreage of potatoes suggest for 1951 is 50,000, which is 11,000 acres greater than the 1950 crop.

Vegetables Crops Produced for Sale: Labor shortages and the profitableness of alternatives have had a depressing affect on acreage for several years, but proximity to a large and expanding urban population makes some increase in the acreage of these crops desirable both from the standpoint of easing the load on transportation facilities and from the economic returns to be secured. An increase of 17,000 acres above the 1950 production is suggested for 1951 by the committee.

Probable Yields

Probable yields in 1951 were set at levels somewhat higher than those obtained during the 5 year period 1937-41 (See Form 2). The appraisal of weather as a factor in the high yields of the past several years is a difficult task. No doubt a return of some less favorable crop years will occur and lower yields will be secured. However, much of the recent improvement in yields must be credited to other factors than the weather with the result that some upward revision in average expectations can safely be made. Widespread use of improved varieties, application of more lime and fertilizer, seeding of more and better sod crops, better timing of seedbed and planting operations, etc., due to more and improved power and equipment, are but a few of the more obvious things contributing to higher yield. For the most part the effect of these factors can be expected to continue and increase in their favorable affect on yields.

During the five year period 1945-49 corn has averaged 51 bu., wheat 25 bu., oats 39 bu., and soybeans 20 bu. per acre. Tame hay yields in recent years have generally exceeded the 1937-41 average of 1.38 tons per acre. The application of greater quantities of lime and fertilizer to

the rotation during the past few years has had a favorable effect. The probable yield of tame hay in 1951 has been estimated at 1.45 tons per acre, compared to the long-time objective of 2.0 tons.

Total Production

If the estimated acreages and yields materialize as indicated by the July crop reports the total production in 1950 of corn, small grain (including entire wheat crop) and soybeans will be 22 percent larger than the 1935-44 average (See Table 3). Probable production in 1951, based on suggested acreages (Form 1) and yields (Form 2), would be about 10 percent above the 1935-44 average.

Form 2

Ohio: Probable crop yields per acre in 1951, with comparisons

Crop	Acre-age	Unit	Yield per acre: Average 1937-43 period	Average 1939-48 period	Probable in 1951	Long-time objective
Column	1	2	3	4	5	6
			Units	Units	Units	Units
Corn, all	P	Bu.	44.9	48.3	50	56
Soybeans for beans	H	Bu.	19.2	19.7	21	22
Burley tobacco	H	Lb.	915	1,034	1,150	1,300
Other domestic tobacco	H	Lb.	1,003	1,180	1,250	1,400
Sugar beets	P	Ton	7.5	9.3	10	12
Irish potatoes	P	Bu.	104.4	119	150	200
Oats for grain	H	Bu.	36.3	37.6	40	45
Barley for grain	H	Bu.	26.3	26.5	26	28
Winter wheat	P	Bu.	20.2	22.8	23	25
Rye for grain	H	Bu.	15.8	16.9	17	18
Buckwheat	P	Bu.	16.4	--	16	16
Peas	P	Ton	0.6	--	--	0.8
Tomatoes	P	Ton	6	--	6.5	7
Sweetcorn	P	Ton	1.7	--	1.7	2.3
Cabbage (Kraut)	P	Ton	7.8	--	7.8	9.5
Hay, all tame	H	Ton	1.38	1.45	1.45	2.0
Rotation (cropland) pasture		a.u.m.			2.5	3.5
Open permanent pasture and range in farms		a.u.m.			1.5	2
Woodland pasture in farms		a.u.m.			0.5	0.8
Other pasture in farms		a.u.m.			0.75	1

H = Harvested

P = Planted

a.u.m. = animal unit month

TABLE 4 - Ohio: Suggested 1951 Production of Major Crops, With Comparisons

Crop	1935-44 Average		1949 Reported		1950 Indicated		1951 Suggested 1/	
	Bushels (1000)	Tons (1000)	Bushels (1000)	Tons (1000)	Bushels (1000)	Tons (1000)	Bushels (1000)	Tons (1000)
Corn	155,800	4,364.1	202,552	5,673.7	188,384	5,276.8	160,000	4,481.8
Wheat	41,875	1,257.5	60,002	1,801.8	48,162	1,446.3	52,325	1,571.3
Oats	41,021	656.3	48,024	768.3	40,824	653.1	46,800	748.8
Barley	747	17.9	464	11.1	1,008	24.1	910	21.8
Rye	1,075	30.1	270	7.5	908	25.4	425	11.9
Buckwheat	283 2/	7.1	248	6.2	250	6.2	272	6.8
Soybeans	9,889 2/	297.0	20,592	618.4	22,302	669.7	17,325	520.3
TOTAL	----	6,630.0	----	8,887.0	----	8,101.6	----	7,362.0
% of 1935-44 average	----	100.0	----	134.0	----	122.1	----	111.0
Tame hay	----	3,410.0	----	3,556	----	3,840	----	3,770
% of 1935-44 average	----	100.0	----	104.3	----	112.6	----	110.5

1/ Based on suggested acreages, Form 1, and normal yields, Form 2.

2/ 1934-44 average.

IV. LIVESTOCK NUMBERS & PRODUCTION IN 1951-52

Estimated Livestock Numbers and Production

In view of our greatly expanded population with its high per capita consumption of livestock products and the current possibility of sharply increased needs if the present international conflict should spread, the production adjustment committee recommends that renewed effort be given by farmers to raising their level of efficiency of converting feed and labor into livestock products. A greater opportunity exists for expanding the output of animal products through making a more efficient use of feed than can be permanently achieved by attempting to expand the feed through larger acreages. On many farms the replacement of low producing animals with more productive ones, the employment of better sanitary practices to reduce death losses and poor gains due to disease and parasites, the feeding of larger amounts of hay and pasture and the use of properly balanced rations, (to mention but a few of the more important factors affecting efficiency) can greatly expand the output without drawing heavier on already depleted soils.

Horses: In 1910 there were according to the U. S. Census of Agriculture 910,224 horses and mules on farms. In 1940 the census reported 447,052 horses and mules. On January 1, 1950 according to the Federal Crop Reporting Board there were 138,000. The number of colts being raised is insufficient to maintain the present low number, consequently a further decrease is expected, but at somewhat slower rate than occurred during and following World War II. It is estimated that there will be not more than 125,000 head by January 1, 1951 (see Form 4). This sharp reduction in numbers has made, and will continue for a few years more to make feed and pasture available for other types of livestock, particularly the roughage and pasture consuming types.

Milk Cows: On January 1, 1945, there were 1,172,000 milk cows on farms in the state. This was the largest number to be recorded to date. During the next four years the number dropped each year and on January 1, 1949, stood at 1,060,000 head. Between January 1, 1949 and January 1, 1950, the number remained unchanged. In view of our expansion in population and the abundant feed supplies in prospect for the coming year, an attempt should be made to maintain present cow numbers and, if possible, to increase them somewhat. Lack of adequate replacement stock prevented any increase during 1949. The situation has changed somewhat in this respect, and some increase during 1950 is in prospect unless heavier than normal culling takes place. The increase in heifer calves saved in 1949 over those saved in 1948 indicate the possibility of a slow rise in numbers through 1951.

Beef Cattle: Abundant roughage and pasture on many farms, together with high prices of both feeder and finished cattle have resulted in a slight increase in beef cow numbers. On January 1, 1950, 99,000 were reported on farms as compared to 94,000 a year earlier. As more hay and pasture become available, the number should be expanded still further.

With the prospects for a favorable corn crop and the continued heavy demand for finished cattle, the number of cattle placed on feed between October 1950 and 1951 will continue at about the same level as prevailed during the preceding 12 months, unless feeder cattle prices rise sharply. In the feeding of these the use of more hay and pasture which is in prospect will reduce the demand for soil depleting grain crops.

Poultry: The number of hens and pullets on farms is expected to be about one million less January 1, 1951, than a year earlier, but about the same as January, 1949. The unfavorable egg prices during the 1950 hatching season is expected to have cut the chickens raised in 1950 about 3½ million below the previous year, which will in turn reduce the number of hens and pullets on farm January 1, 1951.

A constantly expanding consumer population, good prospects for employment and adequate feed supplies suggest that the 1950 cut in chickens raised is too severe and that at least 28 million should be raised in 1951. This would make possible a hen and pullet population of 19 million on January 1, 1952.

Continued high meat prices, together with adequate feed supplies, have resulted in substantial increases in both broiler and turkey production in the state in 1950. In 1949, 1,186,000 turkeys and 4,479,000 broilers were produced. Prospects are for about 1,400,000 turkeys and 5,500,000 broilers to be produced in 1950. A production of 1,250,000 turkeys and 5,000,000 broilers is suggested for 1951.

Sheep: Sheep numbers have been on the down grade since 1943. In the opinion of the Production Adjustment Committee, the downward adjustment has been carried too far on many farms from the standpoint of sound economy and national needs. Some increase in number is desirable, particularly in the medium wool breeds. The long-time objective established in 1944 for the Post-war Crop & Livestock Pattern for Ohio was two million head. There is some evidence of renewed interest in sheep, with the result that numbers may have reached bottom and show some increase by January 1, 1951.

In view of the hay and feed grain supply and favorable lamb prices the number of lambs put on feed between October 1950 and October, 1951, is not expected to change much from the number fed this year, even though the total lamb crop is below last year. Some increase in feeding of native lambs, if possible, would seem desirable under the present feed and price situation.

Hogs: The 1950 Adjustment Committee recommend that Ohio farmers hold their 1951 farrowing to or somewhat below the number farrowed in 1950. In the spring of 1950, 482,000 litters were reported farrowed, and 392,000 litters are expected to be farrowed this fall, according to the June 1 Pig Crop Report. The 1949 Adjustment Committee recommended that not more than 825,000 litters be farrowed in 1950, in view of prospective demand at that time, and the need to carry over corn that could be used to supplement the smaller 1950 corn acreage proposed. The need for soil conservation and rebuilding is still great and under more favorable international conditions a similar recommendation for 1951 would have been made. However, improved domestic

demand, uncertain world conditions, and generally favorable 1950 feed crop situation influenced the committee to raise its suggestion to 870,000 litters for 1951, which is 4,000 below 1950 expectations. The committee strongly urges marketing at lower weights than prevailed during the war and post war years, unless an emergency need should arise that can only be met by carrying heavier weights. Larger farrowing or heavier market weights, or both, than those currently prevailing and recommended, would dangerously overtax the feed supply and lead to difficulties.

TABLE 5 - Ohio: Corn Production and the Number of Sows Farrowed by Years from 1940 to Date

Period or year	Production (1000 bu.)	Sows farrowed (1000 head)		
		Spring	Fall	Total
1935-44 average	155,800	401	350	751
1940	122,360	450	367	817
1941	160,974	392	360	752
1942	185,752	459	432	891
1943	174,042	551	488	1,039
1944	142,956	474	337	811
1945	176,913	360	364	724
1946	178,409	400	335	735
1947	138,826	428	342	770
1948	215,924	381	352	733
1949	202,552	450	384	834
1950 indicated	188,384	482	392	874
1951 suggested	160,000	480	390	870

Livestock Feed Requirements & Availability

Farmers tend to adjust their feeding rates to fit prevailing feed supplies. More liberal, often wasteful feeding takes place when a particular feed is in large supply. In 1949, some upward adjustments were made by the committee in the rates of grain and hay consumption for dairy cows, replacement stock, and feeder cattle. In 1950, grain consumed per dairy cow was again stepped up and hay consumption per horse, dairy cow, and beef cow was raised to adjust for the decline in the feeding of corn stover and straw.

On the basis of these revised estimates of feeding rates, and livestock numbers reported for the feed year October 1, 1949 to October 1, 1950 a total of 5,734,000 tons of all types of concentrated feed, 3,280,000 tons of hay and 12,183,000 animal unit months of pasture will be consumed in the state. The suggested livestock numbers to be fed during the feed years, October, 1950-51 and October, 1951-52 will require slightly more of each of types of feed than the present livestock numbers are currently consuming. If the numbers suggested for the feed year October, 1951-52 materialize, approximately 100,000 tons more grain and commercial by product feed will be needed than during the present feed year. (See Forms 5a, 5b and 5c).

The supply of feed and all other types of grains available for livestock feeding, after due allowance has been made for seed and carryover on farms, amounted to 7,586,000 tons for the present feed year October, 1949-October, 1950. This provides a wide margin between supply and livestock needs which can be used for industrial purposes, shipped out to deficite feed areas and added to the carryover. (See Form 3, page 19). Prospective crop production in 1950 adjusted for carryover and seed is expected to provide 6,800,000 tons of feed and all other types of grains available for livestock during the 1950-51 feed year. It is approximately 1 million tons in excess of the amount required by the livestock program suggested for that period. This too, allows a sizeable tonnage for industrial use and out shipments.

The suggested crop program for 1951 with production estimated on the basis of average yields adjusted for farm carryover and seed will provide slightly less than 6 million tons of feed and other grains for livestock feed between October, 1951 and October, 1952. The suggested livestock program for that period requires 5,837,000 tons which leaves little surplus for industrial use and out shipments. To meet the need for industrial use and shipments to other deficite states, it will be necessary to draw on stocks in government storage which have not been included in the above estimates of feed supplies.

Hay and pasture supplies expected in 1950 and the supplies to be provided by the suggested programs for 1951 and 52 are ample to meet the requirements of the present and suggested livestock numbers. In both feed years 1950-51 and 1951-52 the amount of hay and pasture produced by the suggested acres, and at average yields, will be adequate to permit greater per capita consumption of those feeds.

Farm 3

Ohio: Supply of feeds available for feeding livestock and for other purposes, with comparisons 1951-52

Item	Year beginning October 1		
	1949-50 Reported	1950-51 Expected	1951-52 Suggested
Feed Grains	Tons 1000	Tons 1000	Tons 1000
Corn, all			
Carryover beginning of year on farms	804.3	504.2	450.0
Production (inc. gr. in silage and fodder)	5,673.7	5,276.8	4,481.8
Total supply	6,478.0	5,781.0	4,931.8
Seed	16.8	16.8	16.8
Carryover end of year on farms	504.2	450.0	380.0
Net supply	5,957.0	5,314.2	4,535.0
Oats			
Carryover beginning of year on farms	121.1	99.9	100.0
Production	768.3	653.1	748.8
Total supply	889.4	753.0	848.8
Seed	48.0	48.0	48.0
Carryover end of year on farms	99.9	100.0	100.0
Net supply	741.5	605.0	700.8
Barley			
Carryover beginning of year on farms	1.5	.9	2.2
Production	11.1	24.1	21.8
Total supply	12.6	25.0	24.0
Seed	.8	.8	.8
Carryover end of year on farms	.9	2.2	2.2
Net supply	10.9	22.0	21.0
Other Grains			
Wheat fed on farms where grown	306.0	240.2	250.0
Rye fed on farms where grown	2.4	5.0	4.0
Buckwheat fed on farms where grown	4.0	4.0	4.0
Soybeans for processing (before oil extracted)	564.0	610.0	472.0
Total net supply of feed and other grains available for feeding livestock, industrial use, and for outshipments	7,585.8	6,800.2	5,986.8
Grain needed for feeding livestock	4,910.6	4,972.7	5,010.7
Commercial by-products needed for feeding livestock	800.1	794.4	803.0
Total all types of concentrated feeds needed for livestock 1/	5,734.0	5,790.7	5,837.4

1/ Includes grains, by-product feeds, seeds, and dry skim milk.

Form 3 (continued)

Ohio: Supply of feeds available for feeding livestock and for other purposes, with comparisons 1951-52

Item	Year beginning October 1		
	1949-50 Reported	1950-51 Expected	1951-52 Suggested
	Tons 1000	Tons 1000	Tons 1000
Other farm-produced concentrates			
Soybeans fed	10	10	10
Skim milk fed (dry basis)	12	12	12
Hay			
Carryover beginning of year (May 1)	492	462	500
Tame hay production	3,556	3,840	3,770
Total supply	4,048	4,302	4,270
Carryover end of year (May 1)	462	500	500
Net supply	3,586	3,802	3,770
Total needed for feeding livestock	3,280	3,293	3,333
Other roughages produced and fed			
Corn silage	1,195	1,175	1,175
Corn stover	750	750	700
Small grain straw	100	100	100
Grazing capacity of pastures and ranges (in animal unit months)		Grazing season	
	1950 Expected a.u.m.	1951 Expected a.u.m.	1952 Suggested a.u.m.
Rotation (cropland) pasture	4,637	4,765	4,765
Open permanent pasture and range in farms	7,200	7,200	7,200
Woodland pasture in farms	650	600	600
Other pasture in farms	2,475	2,475	2,475
Total carrying capacity	14,962	15,040	15,040
Total requirements for livestock	12,183	12,257	12,433

Form 4 - Ohio: Suggested production of livestock and livestock products, 1951, with comparisons

Items of livestock and livestock products	Unit	Reported for Jan. 1 1949	Reported for Jan. 1 1950	Suggested Jan. 1 1951	Suggested Jan. 1 1952
Column	1	2	3	4	5
		1000 units	1000 units	1000 units	1000 units
On farms January 1					
Horses, mules and colts	No.	160	138	125	120
Cattle and calves, all	No.	2,128	2,149	2,175	2,200
Cows kept for milk, 2 years /	No.	1,060	1,060	1,075	1,090
Other cows, 2 years /	No.	94	99	102	105
Sheep and lambs, all	No.	1,244	1,195	1,225	1,300
Ewes, 1 year /	No.	762	708	725	775
Hens and pullets	No.	18,409	19,686	18,600	19,000
		Reported in 1949	Expected in 1950	Suggested for 1951	Suggested for 1952
During year					
Sows farrowed, spring 1/	No.	450	482	480	480
Sows farrowed, fall 2/	No.	384	392	390	390
Chickens raised 3/	No.	30,072	26,500	28,000	28,000
Commercial broiler production	No.	4,479	5,500	5,000	5,000
Turkeys raised	No.	1,186	1,400	1,250	1,250
Milk cows, ave. during the year	No.	1,016	1,020	1,030	1,045
Milk produced	1000 Lbs.	5,507	5,559	5,639	5,747
Wool shorn	Lbs.	8,028	7,585	7,730	8,280
Eggs produced	Doz.	214,833	242,728	229,338	234,270
Cattle put on feed 4/	No.	153	165	160	160
Sheep and lambs put on feed 4/	No.	288	288	280	280
Net production of hogs 4/ cwt.	Lbs.	11,594	11,661	11,827	11,862

1/ December 1 (of previous year) to June 1.
2/ June 1 to December 1.
3/ Excluding commercial broilers.
4/ Twelve-month period beginning on October 1.

TABLE 6: Ohio - Estimated Net Weight Production of Hogs by Feed Years Oct. 1 - Oct. 1

Year and pig crop	Sows farrowing	Pigs per litter	Pigs saved	Death loss		Hogs raised	Average market weight	Total weight produced	Percentage of weight put on during feed year	Net production
				Percent	No. of head					
	1000 head	head	1000 head	percent	1000 head	1000 head	pounds	1000 pounds	percent	1000 pounds
1949-50 Reported										
Spring 1949	450	6.83	3,074	10.8	332	2,742	230	630,660	35	220,731
Fall 1949	384	6.85	2,630	10.8	284	2,346	225	527,850	90	475,065
Spring 1950	482	6.46	3,114	10.5	327	2,787	230	641,010	65	416,656
Fall 1950	392	6.80	2,666	10.5	280	2,386	225	536,850	10	53,685
Total										1,166,137
1950-51 Reported & Suggested										
Spring 1950	482	6.46	3,114	10.5	327	2,787	230	641,010	35	224,353
Fall 1950	392	6.80	2,666	10.5	280	2,386	225	536,850	90	481,165
Spring 1951	480	6.60	3,168	10.5	333	2,835	230	652,050	65	423,832
Fall 1951	390	6.80	2,652	10.5	278	2,374	225	534,150	10	53,415
Total										1,182.665
1951-52 Suggested										
Spring 1951	480	6.60	3,168	10.5	333	2,835	230	652,050	35	228,217
Fall 1951	390	6.80	2,652	10.5	278	2,374	225	534,150	90	480,735
Spring 1952	480	6.60	3,168	10.5	333	2,835	230	652,050	65	423,832
Fall 1952	390	6.81	2,651	10.5	278	2,374	225	534,150	10	53,415
Total										1,186,199

Form 5a

Ohio: Estimated quantities of feeds needed for feeding livestock reported for the 12-month period beginning October 1, 1949.

Class of livestock	Feed per animal, bird or cwt.					Total livestock and feed					
	Concentrates				Tame and wild hay	Units of live stock	Concentrates			Hay	Pasture and Grazing (1000)
	Grains 1/	Seeds and skim milk	Commercial by-products	Total			Grains 1/	Seeds and skim milk	Commercial by-products		
Column	1	2	3	4	5	6	7	8	9	10	11
	Pounds	Pounds	Pounds	Pounds	Pounds	1000 Units	1000 Tons	1000 Tons	1000 Tons	1000 Tons	A. U. Months
1. Horses, mules & colts	1300	--	5	1305	4000	138	89.7	--	0.3	276	690
2. Milk cows	1715	10	325	2050	3500	1060	908.9	5.3	172.2	1855	6360
3. Beef cows	190	--	10	200	3000	99	9.4	--	0.5	148	693
4. Feeder cattle	1825	10	165	2000	1200	165	150.6	0.8	13.6	99	165
5. Other cattle & calves	650	10	90	750	1500	860	279.5	4.3	38.7	645	1720
6. Ewes, 1 year /	75	--	3	78	450	708	26.5	--	1.0	159	708
7. Feeder sheep & lambs	105	--	20	125	200	288	15.1	--	2.9	29	29
8. Other sheep & lambs	40	--	--	40	375	222	4.4	--	--	42	222
9. Hogs, cwt. net production	425	2	38	465	2	11661	2477.9	11.6	221.5	12	1446
10. Hens & pullets	60	--	25	85	xxx	19686	540.6	--	246.1	--	59
11. Chickens raised	25	0.1	6	31	xxx	26500	331.3	1.3	79.5	--	27
12. Comm. broilers produced	7	--	6	13	xxx	5500	19.2	--	16.5	--	--
13. Turkeys raised	80	--	10	90	xxx	1400	56.0	--	7.0	--	56
14. Other livestock	xxx	xxx	xxx	xxx	xxx	xxx	1.5	--	0.3	15	10
Total	xxx	xxx	xxx	xxx	xxx		4910.6	23.3	800.1	3280	12185

1/ Includes corn, oats, barley, rye, and wheat, fed from any source including harvested grain, corn silage, corn fodder, unthreshed grain, or commercial mixed feeds.

Form 5b

Ohio: Estimated quantities of feeds needed for feeding livestock expected for the 12-month period beginning October 1, 1950.

Class of livestock	Feed per animal, bird or cwt.					Total livestock and feed					
	Concentrates						Concentrates				
	Grains 1/	Seeds and skim milk	Commercial by-products	Total	Tame and wild hay	Units of live stock	Grains 1/	Seeds and skim milk	Commercial by-products	Hay	Pasture and grazing (1000)
Column	1	2	3	4	5	6	7	8	9	10	11
	Pounds	Pounds	Pounds	Pounds	Pounds	1000 Units	1000 Tons	1000 Tons	1000 Tons	1000 Tons	A. U. Months
1. Horses, mules & colts	1300	--	5	1305	4000	125	81.3	--	0.3	250	625
2. Milk cows	1715	10	325	2050	3500	1075	921.8	5.3	174.6	1881	6450
3. Beef cows	190	--	10	200	3000	102	9.7	--	0.5	153	714
4. Feeder cattle	1825	10	165	2000	1200	160	146.0	0.8	13.2	96	160
5. Other cattle & calves	650	10	90	750	1500	868	282.1	4.3	39.1	651	1736
6. Ewes, 1 year /	75	--	3	78	450	725	27.2	--	1.1	163	725
7. Feeder sheep and lambs	105	--	20	125	200	280	14.7	--	2.8	28	28
8. Other sheep and lambs	40	--	--	40	375	235	4.7	--	--	44	235
9. Hogs, cwt. net production	425	2	38	465	2	11827	2513.2	11.8	224.7	12	1440
10. Hens and pullets	60	--	25	85	xxx	18600	553.0		232.5	--	56
11. Chickens raised	25	0.1	6	31	xxx	28000	350.0	1.4	84.0	--	28
12. Comm. broilers produced	7	--	6	13	xxx	5000	17.5	--	15.0	--	--
13. Turkeys raised	80	--	10	90	xxx	1250	50.0	--	6.3	--	50
14. Other livestock	xxx	xxx	xxx	xxx	xxx	xxx	1.5	--	0.3	15	10
Total	xxx	xxx	xxx	xxx	xxx	xxx	4972.7	23.6	794.4	3293	12257

1/ Includes corn, oats, barley, rye, and wheat, fed from any source including harvested grain, corn silage, corn fodder, unthreshed grain, or commercial mixed feeds.

Form 5c

Ohio: Estimated quantities of feeds needed for feeding livestock suggested for the 12-month period beginning October 1, 1951.

Class of livestock	Feed per animal, bird or cwt.					Total livestock and feed					
	Concentrates				Tame and wild hay	Units of live stock	Concentrates			Hay	Pasture and grazing (1000)
	Grains 1/	Seeds and skim milk	Commercial by-products	Total			Grains 1/	Seeds and skim milk	Commercial by-products		
Column	1	2	3	4	5	6	7	8	9	10	11
	Pounds	Pounds	Pounds	Pounds	Pounds	1000 Units	1000 Tons	1000 Tons	1000 Tons	1000 Tons	A. U. Months
1. Horses, mules & colts	1300	--	5	1305	4000	120	78.0	--	0.3	240	600
2. Milk cows	1715	10	325	2050	3500	1090	934.7	5.4	177.1	1907	6540
3. Beef cows	190	--	10	200	3000	105	10.0	--	0.5	157	735
4. Feeder cattle	1825	10	165	2000	1200	160	146.0	0.8	13.2	96	160
5. Other cattle and calves	650	10	90	750	1500	875	284.3	4.3	39.3	656	1750
6. Ewes, 1 year /	75	--	3	78	450	775	28.1	--	1.1	174	775
7. Feeder sheep & lambs	105	--	20	125	200	280	14.7	--	2.8	28	28
8. Other sheep and lambs	40	--	--	40	375	260	5.2	--	--	48	260
9. Hogs, cwt. net production	425	2	38	465	2	11362	2520.7	11.8	225.3	12	1440
10. Hens and pullets	60	--	25	85	xxx	19000	570.0	--	237.5	--	57
11. Chickens raised	25	0.1	6	31	xxx	28000	350.0	1.4	84.0	--	28
12. Comm. broilers produced	7	--	6	13	xxx	5000	17.5	--	15.0	--	--
13. Turkeys raised	80	--	10	90	xxx	1250	50.0	--	6.3	--	50
14. Other livestock	xxx	xxx	xxx	xxx	xxx	xxx	1.5	--	0.6	15	10
Total	xxx	xxx	xxx	xxx	xxx	xxx	5010.7	23.7	803.0	3333	12433

1/ Includes corn, oats, barley, rye and wheat, fed from any source including harvested grain, corn silage, corn fodder, unthreshed grain, or commercial mixed feeds.